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Corporate Farming, 1969-82

Kenneth R. Krause

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Abstract

The number of incorporated farms in the United States rose by 178 percent in 1969-82. Most of the increase, 140 percent, occurred between 1969 and 1978. Tax advantages in the 1970's provided the chief impetus for farmers to incorporate: corporate tax rates declined while individual tax rates rose, mainly because of inflation. The Economic Recovery Tax Act of 1981 and liberalized estate tax laws have reduced the incentives for incorporating, however. Despite the increase in farm corporations, most farms remain sole proprietorships and most incorporated farms are family ones. Nonfamily corporations accounted for only 11 percent of the 59,792 farm corporations in 1982. Vertical integration and contract production appear to be increasing.

Keywords: Corporate farming statutes, farm organization, vertical integration, landownership, real estate, economic incentives.

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Washington, DC 20005-4788 December 1987

Preface

This report describes and analyzes the relative importance of farm businesses that were incorporated to produce agricultural commodities between 1969 and 1982. It updates, in part, two earlier USDA studies by the Economic Research Service: *State Regulation of Corporate Farming* (AER-419, December 1978) and *Corporate Farming: Importance, Incentives, and State Restrictions* (AER-506, December 1983). It includes the latest information available on corporate farm numbers on a national basis. States were classified as having restrictions on corporate farms based on information provided in AER-506. That report also contains Federal income tax provisions that were important in explaining the increase in the number of incorporated family farms through 1982.

This report is not intended for use by farmers in choosing a legal farm business organization, nor for preparing income tax returns, nor for complying with the provisions of State regulations on corporate farms and integration.

Readers who need to stay current with changes in tax provisions and State regulations have a new source of information: the 14 *Agricultural Law* volumes by Neil E. Harl (Matthew Bender and Company, New York, N.Y.) are frequently updated.

Note: Earlier versions of this publication, *Corporate Farming: Importance, Incentives, and State Restrictions* (AER-506, December 1983) and *State Regulation of Corporate Farming* (AER-419, December 1978) can generally be accessed through Government Depository Libraries. These libraries are located at land grant universities around the country, at selected State and public city libraries, and at various other locations. Consult your university or municipal reference librarian for additional information.

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Summary

The number of incorporated farms rose by 178 percent from 1969-82, although most of the increase (140 percent) occurred between 1969 and 1978. Tax advantages in the 1970's provided the chief impetus for farmers to incorporate: corporate taxes declined while individual tax rates rose, mainly because of inflation. The Economic Recovery Tax Act of 1981 and liberalized estate tax laws have dampened incentives for incorporating, however. Despite the increase in farm corporations, most farms remain sole proprietorships and most incorporated farms are family ones. Nonfamily corporations accounted for only 11 percent of the 59,792 farm corporations in 1982. Vertical integration and contract production appear to be increasing.

Large corporations, though, do dominate production of a few crops and commodities (fruits, nuts, broilers, and sugarcane). That domination in a small but highly visible niche of American agriculture has helped foster the impression that family farms are being threatened by large conglomerates. Ten States, responding to that perception, passed laws by the end of 1981 to restrict the activities of farm corporations. The State laws try to maintain a competitive market environment for the family farm.

The farm financial problems in the 1980's have resulted in some real estate lenders taking title to increasing farm acreages. Yet at the end of 1985, commercial banks and life insurance companies each held only 2 percent or less of the value of farm real estate. In most States, Federal land banks held a higher percentage of debt than the private lenders. Available data in 1986 indicate that private lenders are unlikely, however, to take title to a sufficient amount of farm real estate to exert much corporate control over U.S. agriculture on a national basis.

Indicators suggest that vertical integration and contracting are on the rise. Both increased by over 50 percent from 1960 to 1980. Contract production was more prevalent (22.9 percent of total farm output in 1980) than vertical integration (7.4 percent).

The chief incentive for incorporation in the 1970's related to taxes:

- The Federal corporate income tax was lower than that for sole proprietorships and was reduced several times in the 1970's, while that for sole proprietorships rose, chiefly because of inflation-induced bracket creep.

- A corporate form of organization offers better protection than does sole proprietorship for the continuity of the farm when the farmer dies or retires. Younger people can be brought into the farm operations more easily. By contrast, a sole proprietorship becomes subject to estate taxes on the entire farm holdings when the farmer dies and must be recapitalized every generation.

The rate of farm incorporation will slow in the 1980's, according to preliminary data. Farms were incorporated in response to some special economic conditions of the 1970's, like the tax advantages. But, taxes for all entities were reduced in 1981, effectively raising the net taxable income at which incorporation became advantageous. Tax reform legislation enacted in 1986 may further reduce the incentive for incorporating family farms and may encourage some corporations to seek alternative Federal tax filing arrangements such as use of Subchapter S provisions. In addition, decreasing farm asset values in the 1980's and recently liberalized estate tax laws have made protection from taxes a less immediate concern than it was in the mid-1970's.

Corporate Farming, 1969-82

Kenneth R. Krause*

Introduction

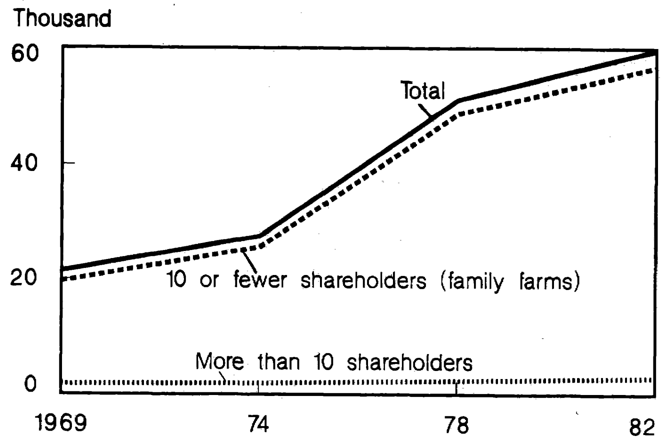
The number of farm corporations in the United States increased by about 178 percent from 1969 to 1982, rising from 21,513 to 59,792. Even so, corporate farms accounted for only about 2.6 percent of all farms and 23 percent of all farm sales in 1982. This was up from 17.7 percent of all farm sales in 1974. Most farm corporations (56,839) had 10 or fewer shareholders in 1982, while only 2,953 had more than 10 shareholders (fig. 1). The more than doubling in the number of corporations with 10 or fewer shareholders between 1974 and 1982 accounted for the increase in farm sales by corporations. About 89 percent of all the farm corporations indicated on their 1982 *Census of Agriculture* response that they were family-held farms. Some large corporations (more than 10 shareholders) are vertically integrated into farm supply and product marketing and processing activities. In 1982, family-held corporations accounted for about 82 percent of all sales by incorporated farms (fig. 2).

Changes in the tax laws in the 1970's and the Economic Recovery Tax Act of 1981, coupled with some tax-related effects of inflation, enhanced the advantage of corporations over sole proprietorships and partnerships for farmers with large taxable farm incomes. Those tax changes, although not specifically enacted for their effects on farms, nevertheless offered added inducements for farms, as well as other businesses, to incorporate in the 1970's and early 1980's (*1,4*).[1]

Taxation of income, however, is only one factor that farmers consider when choosing their form of business organization. Other considerations may support or offset the tax advantages of incorporation, depending on producers' individual circumstances. Some of these factors include estate transfer and estate taxes, operator liability, intergeneration life of the business, access to debt and equity funds, organizational costs, and public disclosure of activities required by some States.

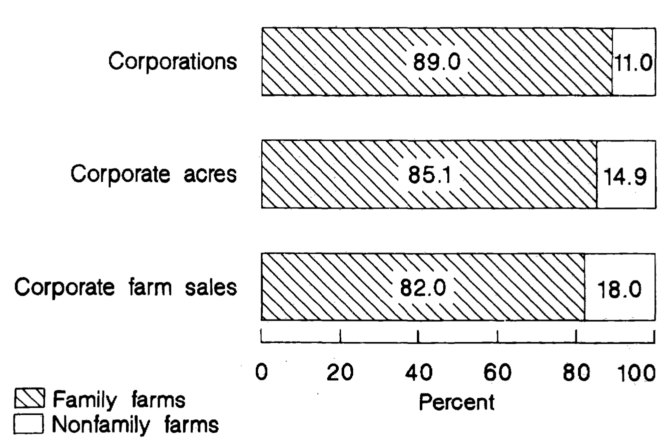
Farm producers most likely to respond to incentives to change their business organizations will be among the 635,000 largest farms (about 28 percent of the total) that produced 89 percent of the U.S. farm products in 1982. That group excludes farms where off-farm employment provides most of the

Figure 1
Increases in farm corporations are chiefly family farms



Sources: U.S. Department of Commerce, 1969, 1972, 1978, and 1982 *Censuses of Agriculture.*

Figure 2
Family farms dominate U.S. corporate farm operations, 1982



Sources: U.S. Department of Commerce, *1982 Census of Agriculture.*

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[1]Italicized numbers in parentheses refer to sources listed in the References at the end of the report.

Nomenclature

The censuses of agriculture, from which this report draws much of its data, collected data on farm corporations, sole proprietorships, and partnerships. The corporate data were divided into two categories for censuses conducted between 1969 and 1982:

- 10 or fewer shareholders (also called narrowly held corporations).
- More than 10 shareholders (also called widely held corporations).

The *1982 Census of Agriculture* collected data, in addition to those two categories, on the number of:

- Family farm corporations.
- Nonfamily farm corporations.

In most analyses, the number of corporations with 10 or fewer shareholders is used as a proxy for family corporations and the number of corporations with more than 10 shareholders as a proxy for nonfamily farm corporations. The correlation is high. Readers should also not confuse any of those census demarcations with the securities terms of "closely held" and "publicly held" corporations. Most farm corporations are both narrowly held (10 or fewer shareholders) and closely held by a small circle of family or other investors; the stock is not publicly traded. Of the nonfamily corporations, only about 20 percent have more than 10 shareholders. Those are, presumably, the only farm corporations that are "publicly held" with their securities traded on a stock exchange.

Farm corporations, 1982

Farm corporations	Unit	10 or fewer shareholders	More than 10 shareholders	All farm corporations
Total	Number	56,839	2,953	59,792
Total acres	1,000	106,255	18,535	124,790
Sales	$1,000	27,679	6,071	33,750
Total	Percent	89	11	100
Total acres	Percent	83	17	100
Sales	Percent	82	18	100

operator's household income. Smaller and part-time farmers also have incentives to incorporate, but the tax advantages and other benefits are not as great as those for larger farms.

The production side of agriculture is the focus of this report, since most farm corporations have 10 or fewer shareholders. Limited attention is given to farm supply and marketing firms that may try to acquire farm production resources as part of a diversification or integration process. The primary motivations for such firms to use a corporate form of business organization are only partially related to their farming activities.

As of 1981, 10 States had enacted legislation to limit the agricultural activities of corporations. The statutes were enacted in response to a perception that corporations represent a threat to the family farm. That perception was based on the increasing size of farms and by the presence of large, highly integrated corporations involved in producing certain commodities: nuts, broilers, sugarcane and sugarbeets, citrus fruits, vegetables for processing, and fluid grade milk. To varying degrees, the statutes restrict corporate farm operations by limiting the size of corporate landholdings, by restricting corporate integration into farming, and by preventing certain types of corporations from engaging in agricultural production altogether.

While we lack empirical evidence on whether the statutes have been effective in accomplishing their narrow goals, many contain exceptions and exemptions, however, that may undermine their wider purpose of protecting the family farm. For example, the statutes emphasize restricting corporations, but none of the statutes restricts other types of farm operations (limited partnerships, for example). Available data suggest that large corporate involvement in agricultural production is not significant, either in the United States as a whole or in States enacting the statutes. In 1982, total agricultural production by nonfamily farm corporations was only 4 percent of the U.S. total. U.S. farming is still largely a family-run business. Sole proprietorships, partnerships, and family farm corporations constituted 99 percent of all farms and accounted for 96 percent of all farm sales in 1982.

Public policy to restrict large and corporate farm activities may not be in consumers' longrun interest. Among the issues facing agriculture and consumers over the next decades is how best to conserve soil, water, and other natural resources while maintaining an adequate level of high-quality, safe food at a reasonable cost to consumers and to the Federal Government. Large well-financed farm firms may be more effective in handling the issues than smaller, less profitable farms.

In addition, consumer food costs can be reduced, at least marginally, in the long run by economies of size in farm production by larger farms producing at lower costs. Some evidence suggests that significant reductions in the cost of farm inputs can be achieved by farms that are much larger than average (*5, 6, 13*). With a new generation of much larger farm machines, better seeds, and more effective crop chemicals available, the trend for farms to become larger will likely continue. Some much larger farms may emerge as moderate-sized ones decrease in number. However, with decreasing price prospects for many of the farm commodities involved in Government commodity programs in the near term, the number of new large farms may be small.

Past experience indicates that fewer than 40 percent of future new large farms with sales of $500,000 and more will incorporate. Changes in the Federal income provisions in 1986, which lowered tax rates more for sole proprietors than for corporations, may cause an even lower proportion of future large farms to incorporate.

Corporate and Other Large-Scale Farming

Corporate farms gained importance in farm product sales during the 1960's and 1970's when a declining proportion of farms was accounting for a rising share of production. The farms producing most of the food and fiber during this period turned increasingly to the corporate form of business organization, but about 95 percent of the corporations had 10 or fewer shareholders, and nearly 90 percent were family held.

Census data show that there were about 11 times as many corporations with 10 or fewer shareholders as there were corporations with more than 10 shareholders in 1969. And, the narrowly held corporations had nearly five times the sales of the others. By 1982, there were over 19 times as many narrowly held corporations as there were widely held ones. And sales of the closely held corporations were over 4 1/2 times the sales of the widely held corporations. In addition, family corporations had 85.1 percent of all acreage held by farm corporations in 1982.

Data Sources

Data furnished here are the available Federal data on corporate and other large-scale farming. They allow readers to assess changes in corporate farm numbers since the last farm census. Data on corporate farms from the State of Iowa are also provided to assess changes in that State's corporate farm numbers since 1982.

A short description of the sources of Federal data is also included. The IRS has annually collected data from 1957 on farm corporations, partnerships, and sole proprietors. The latest available data are from 1983. When the *1969 Census of Agriculture* was conducted, it marked the first time that the Bureau of the Census collected information on corporations involved in farming.

Both IRS and census data are provided here since various users employ both sources. Caution is necessary in comparing data since the Bureau of the Census reports all corporations with farm sales, while IRS reports as farms only those corporations in which most of the business receipts came from farming. The IRS has recently been releasing its annual data 2-3 years after the filing date. The census data are usually collected every 5 years. The most recent available are for 1982.

Number and Significance of Corporate Farms

The Internal Revenue Service (IRS) data show that the sole proprietorship was the dominant form of farm business organization among firms filing farm tax returns between 1957 and 1982 (table 1). There were 3.3 million in 1957 and about 2.9 million in 1982. Partnerships were the second most numerous, but substantially fewer: 136,600 in both 1957 and 1983. In recent years, each farm partnership has had between 3.1 and 3.4 partners. Partnerships, however, were much more numerous than corporations. The number of incorporated farm businesses filing income tax returns increased from 8,200 in 1957 to 66,900 in 1983.

During 1957-82, the number of sole proprietorships filing farm tax returns fell by about 443,000. During 1957-83, partnership numbers remained the same. Corporations, however, increased by about 58,700 during 1957-83. The proportion of each type of organization (sole proprietor, partnership, and corporation), in relation to all farm businesses filing farm returns, changed by 2 percent or less over the 25-year period. The growth in corporations, as shown later by census data, occurred mainly among privately held ones with few shareholders. That growth reflects the trend of family farms to incorporate.

The share of business receipts of farm corporations increased substantially from 6.8 percent in 1957 to 25.6 percent in 1980. During the same period, the share of sole proprietorships declined from 80.9 to 61.6 percent, while the share of partnerships showed the least change, up slightly from 12.3 to 12.8 percent of farm business receipts.

Some corporations have few shareholders and manage their business affairs, including financing and income tax filing, like partnerships. Shareholders are often members of the same family. Many of the closely held corporations file Federal income tax returns under Subchapter S corporation provisions.[2]

Closely held (Subchapter S) corporations, where the majority of the sales were from farming activities, were in the minority in 1963, 3,700 returns versus 12,500 for other corporations.[3] The Subchapter S corporations were still in the minority in 1971 with 8,700 returns versus 16,700 for other corporations. The data indicate, however, that farming corporations filing as closely held corporations increased at a more rapid rate than those filing under general corporation provisions. However, the proportion of business receipts received by Subchapter S corporations was about the same in 1971 (the latest date for which data are available) as in 1966. Subchapter S corporations accounted for about 16 percent of the receipts in 1966 and 17 percent in 1971.

The *Census of Agriculture* is based on concepts differing from those of the IRS reports. Census data will probably be increasingly used as a source of information for analyzing the national importance of corporate farming. Data for four time points are now available. A fifth point will be available from the *1987 Census of Agriculture*. Despite the conceptual differences, the 1969 census and IRS numbers were similar: 21,513 census farm corporations and 20,466 IRS farm corporations.

The census showed about 14 percent of farm sales were made by corporations with sales of $2,500 or more in 1969, while IRS showed about 15.3 percent. The 1974 census recorded 28,656 farm corporations, while IRS recorded about 37,300. In 1974, the census reported that about 17.7 percent of farm sales were made by corporations with farm sales of $2,500 or more; IRS reported about 20.6 percent. The census reported 51,270 farm corporations in 1978, while IRS recorded about 50,200 in 1978. In 1978, the census reported that corporate farms made about 22.8 percent of total sales, while IRS showed corporations making 24 percent of the sales. The *1982 Census of Agriculture* showed 59,792 farm corporations making about 23.3 percent of farm sales. IRS estimated that about 65,800 farm corporations existed in 1982. Because the IRS discontinued the business receipt data in 1982, the percentage of sales made by farm corporations in 1982 cannot be determined. However, IRS reported that corporations made 25.6 percent of the sales in 1980.

The 1969 census reported 19,716 corporations with 10 or fewer shareholders, substantially more than IRS's 6,503 Subchapter S corporations. The 1,779 corporations with more than 10 shareholders

[2]Under Subchapter S provisions, corporations with 10 or fewer shareholders (15 under the 1967 Tax Reform Act and 25 under the Economic Recovery Act of 1981) are treated as partnerships for Federal income tax purposes if the income is passed directly to the owners who pay the income tax; no corporate income tax is paid.

[3]Based on IRS data provided in *Statistics of Income: Business Tax Returns* (various issues) and unpublished IRS "Source Book of Statistics, Corporation Income Tax Returns." Data have not been provided by the IRS on Subchapter S corporations since 1971.

Table 1—Federal tax returns and business receipts by form of organization

Year	Tax returns				Business receipts			
	Sole proprietorships	Partnerships	Corporations[1]	Total[2]	Sole proprietorships	Partnerships	Corporations[1]	Total[3]
	Thousands				*Billion dollars*			
1957	3,343.2	136.6	8.2	3,488.0[2]	22.4	3.4	1.9	27.7[3]
1960	3,358.6	126.9	11.8	3,497.3	25.5	3.6	2.8	31.9
1965	3,063.6	116.3	18.5	3,198.4	29.9	4.1	4.4	38.4
1969	3,089.2	108.3	20.5	3,218.5	37.6	5.5	7.8	50.9
1970	2,905.9	111.3	24.1	3,041.3	39.1	6.8	9.0	54.9
1971	2,941.4	109.3	25.4	3,076.1	40.9	6.5	8.4	55.8
1972	3,007.2	102.3	27.4	3,137.0	48.6	8.1	9.5	66.2
1973	3,203.0	111.4	34.5	3,348.9	62.6	11.5	17.9	92.0
1974	3,178.2	109.6	37.3	3,325.1	63.4	11.2	19.4	94.0
1975	3,122.4	110.1	39.6	3,272.2	65.3	11.5	21.2	98.0
1976	3,218.3	106.7	42.3	3,367.3	73.5	11.6	23.5	108.6
1977	2,931.8	105.7	46.3	3,083.8	69.4	11.7	26.3	107.4
1978	3,109.7	109.5	50.2	3,269.4	81.7	16.0	30.9	128.6
1979	2,986.4	108.3	59.4	3,154.1	94.7	18.6	38.2	151.5
1980	2,971.6	108.1	56.1	3,135.8	92.1	19.2	38.2	149.5
1981	3,385.1	108.2	62.2	3,555.5	66.9	2.6[4]	45.7	NA
1982	2,900.0[5]	111.8	65.8	3,077.6	67.8	2.5	43.0	NA
1983	NA	136.6	66.9	NA	NA	5.9	39.4	NA
				Percent				
1957	95.9	3.9	0.2	100.0	80.9	12.3	6.8	100.0
1960	96.0	3.6	.4	100.0	79.9	11.3	8.8	100.0
1965	95.8	3.6	.6	100.0	77.9	10.7	11.4	100.0
1969	96.0	3.4	.6	100.0	73.9	10.8	15.3	100.0
1970	95.6	3.6	.8	100.0	71.2	12.4	16.4	100.0
1971	95.6	3.6	.8	100.0	73.3	11.6	15.1	100.0
1972	95.8	3.3	.9	100.0	73.5	12.2	14.3	100.0
1973	95.7	3.3	1.0	100.0	68.4	12.2	19.4	100.0
1974	95.6	3.3	1.1	100.0	67.5	11.9	20.6	100.0
1975	95.4	3.4	1.2	100.0	66.6	11.8	21.6	100.0
1976	95.5	3.2	1.3	100.0	67.7	10.7	21.6	100.0
1977	95.1	3.4	1.5	100.0	64.6	10.9	24.5	100.0
1978	95.1	3.4	1.5	100.0	63.6	12.4	24.0	100.0
1979	94.7	3.4	1.9	100.0	62.5	12.3	25.2	100.0
1980	94.8	3.4	1.8	100.0	61.6	12.8	25.6	100.0
1981	95.2	3.0	1.8	100.0	NA	NA	NA	NA
1982	94.2	3.6	2.2	100.0	NA	NA	NA	NA
1983	NA	NA	NA	NA	NA	NA	NA	NA

NA = Not available.

[1] Corporations were classified and included as farm corporations when the majority of all business receipts were from farming and when they filed an Internal Revenue Service (IRS) schedule 1040-F or Form 4835.
[2] Corporate farms were estimated at 69 percent of total agricultural, forestry, and fisheries corporations for 1957-76.
[3] Corporate farm business receipts were estimated at 67 percent of the total for agricultural, forestry, and fisheries corporations for 1957-67.
[4] Due to budget reductions, the IRS in 1980 started publishing only net income data for farm partnerships and discontinued publishing data on business receipts. IRS enumerated the number of partners per partnership. It found an average of 3 partners for each partnership in 1979, 3.1 in 1980, 3.2 in 1981, and 3.4 in both 1982 and 1983.
[5] Due to budget reductions, the IRS estimated the number of schedule F sole proprietorship returns in 1982, stopped publishing the numbers in 1982, but expects to resume publishing the numbers in the years that *Census of Agriculture* data are collected (for example, 1987 and 1992.)

Sources: U.S. Department of the Treasury, Internal Revenue Service, *Statistics of Income Bulletin, 1982-83*, volumes 1 through 4, cover sole proprietorships, partnerships, and corporations. However, after 1982, individual publications for each form of business organization were no longer published.

reported by the census were substantially less than the 13,963 other farm corporations reported by IRS. Such comparisons beyond 1971 are not possible since IRS did not release the data. The difference probably results from many corporations with 10 or fewer shareholders electing not to file tax returns under Subchapter S. For example, a 1968 study of California corporations showed that only 23 percent of corporations with 10 or fewer shareholders filed under Subchapter S (8).

In 1982, the 10 States with restrictive statutes on farm corporations reported 20,007 corporations, of which 19,185 had 10 or fewer shareholders (table 2). Texas, Iowa, and Nebraska were the only restrictive-statute States with more than 100 widely held farm corporations. The 40 States without statutes had 39,785 farm corporations, of which 37,654 had 10 or fewer shareholders. Among these 40 States, California (with 356), Florida (with 211), and Montana (with 100) were the only ones with 100 or more widely held farm corporations.

The number of corporate farms recorded by the Bureau of the Census increased from 21,513 in 1969 to 59,792 in 1982. Although the restrictive statutes were in place in the 10 States by the mid-1970's, the increase in number of corporate farms was 305.2 percent in the 10 States, while the increase for the other 40 States was 178 percent. No State showed a decline in the number of farm corporations between 1969 and 1982. All of the States showed an increase in the number of incorporated farms between 1969 and 1978.

Nine States showed a decrease in the number of incorporated farms during 1978-82. North Carolina showed the largest percentage decrease, 21.4 percent, while Pennsylvania showed the smallest decrease, 1.1 percent.

In 1982, as a percentage of farms with sales of $2,500 or more, corporations with more than 10 shareholders accounted for 3 percent of sales in the 10 States with restrictions, and 4.1 percent of sales in the other 40 States (table 3). Corporations with 10 or fewer shareholders accounted for 18.7 percent of sales in the 10 restrictive States in 1982 and for 20 percent in the remaining 40 States. In States with corporate farm laws, widely held corporations accounted for less than 3 percent of all farm sales except in Texas and Kansas; widely held Texas corporations accounted for about 6.2 percent of State farm sales and widely held Kansas corporations accounted for 6.7 percent of State farm sales. By contrast, widely held corporations exceeded 3 percent of all State farm sales in 24 of the States without restrictive statutes in 1982.

While farm corporations held large acreage in some States without restrictive statutes in 1982, the acreage held by all farm corporations in all States was less than 13 percent of the total acreage held by farms with sales of $2,500 or more (table 3). The largest concentration of corporate landholdings in 1982 was in Hawaii, where corporations held about 52 percent of all land in farms. In the Corn Belt, corporate-held farmland accounted for less than 10 percent of the land area in farms, and widely held corporations held only a small part of that.

Corporations and partnerships in 1974, 1978, and 1982 accounted for a larger proportion of farms as sales increased (fig. 3). Sole proprietorships, however, accounted for 70 percent of the farms with sales of $100,000 or more in 1982, a small decline from 71.1 percent in 1974. Most farm corporations (61.9 percent of the narrowly held and 67 percent of the widely held) had sales of $100,000 and over in 1982, while 51.1 percent of the sole proprietorships had sales of less than $20,000 in 1982 (fig. 4).

Figure 3
Number of farms, by sales class

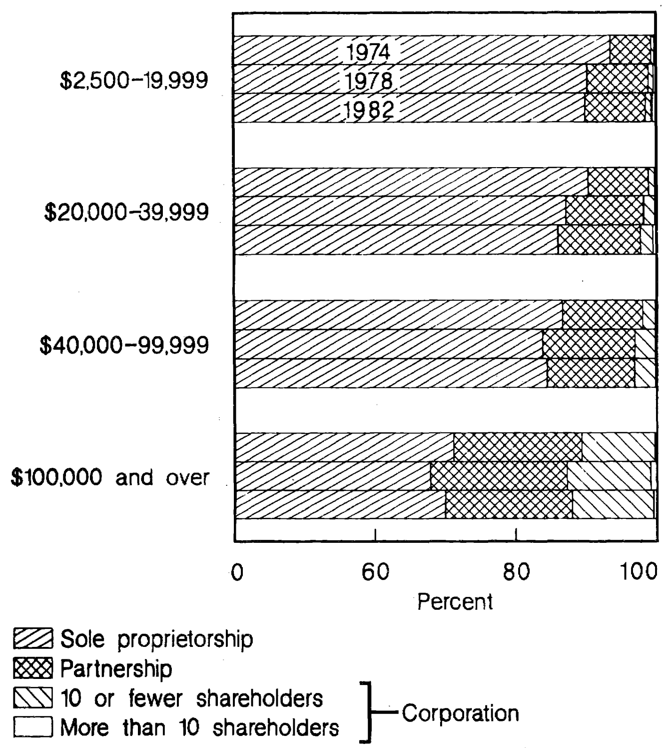
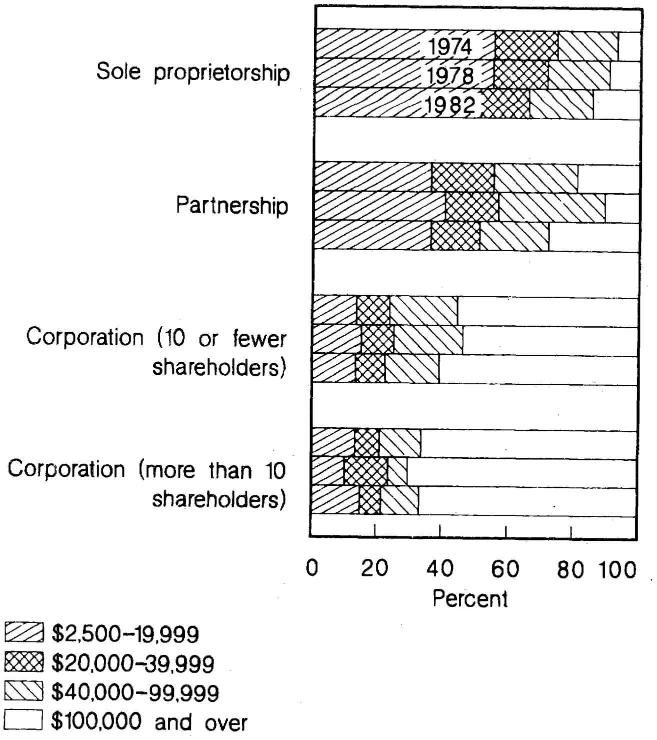


Figure 4
Distribution of farm sales, by type of farm organization



Commodity Specialization

Farms with sales of $500,000 or more, including corporations, tended to specialize in livestock, cash grains, dairy, and field crops.[4] The largest farms, with $1 million and more sales, had a larger proportion of sales from intensive enterprises such as fed cattle, poultry, and horticultural crops plus high-value field crops such as sugar crops, potatoes, fruits, nuts, berries, and greenhouse products. Cattle, fruits, nursery and greenhouse products, poultry, and vegetables accounted for about 90 percent of the sales from farms with $5 million or more in sales. The smaller of the large farms, with $500,000 to $5 million in sales, were more heavily involved in producing grains, oilseeds, low-value field crops, and dairy products.

Large-scale farms account for a major part of the value of output for high-value commodities which require intensive use of resources including land. In 1982, farms with sales of $500,000 or more accounted for about 70 percent of all commercial vegetable sales, 60 percent of the sales of nursery and greenhouse products, and 50 percent of the sales of cattle, cotton, fruits and nuts, miscellaneous field crops, and poultry. They accounted for about 12 percent of grain and oilseed sales and less than 5 percent of the tobacco sales.

In some regions, widely held corporations were important in the sales of some commodities. For instance, widely held corporations in 1974 sold over 50 percent of the tobacco in the Northeastern States. While large sized and widely held corporations have specialized in certain commodities, those commodities have generally not been among the most important ones in the States where tight restrictions have been placed on widely held farm corporations.

Comparative Importance of Corporate and Large-Scale Farms

Large-scale farms with annual sales of $500,000 or more, whether incorporated or not, became more important in farm product sales during 1974-82. The importance of corporate farms is compared with large-scale farms, and the percentage of all farms with sales of $500,000 or more which were incorporated in 1982 are shown.

In 1974, large-scale farms accounted for 22.5 percent of sales but increased to about one-third of sales in 1982 (table 4) (*11*). All incorporated farms captured 17.7 percent of total farm sales in 1974 and increased their importance to 23.3 percent in 1982 (table 4).

The number of large-scale farms increased by about 143 percent during 1974-82, while the number of incorporated farms lagged with a 116-percent increase (table 5). The number of incorporated farms was more than double the number of farms with sales of $500,000 or more in both 1974 and 1982. Thus, more than 50 percent of all corporate farms are not considered as large-scale farms when sales of $500,000 or more is the criterion for defining large-scale farms.

All incorporated farms also lagged large-scale farms in the rate of increase in land in farms in 1974-82. The large-scale farms increased their land in farms in 1974-82 by over 92 percent, while all corporate farms increased by 74.9 percent (table 5). All corporate farms, however, had more acres in both 1974 and 1982 than did the farms with current value sales of $500,000 and more.

[4]Data and analyses in this section draw on a special 1974 corporate farm census.

Table 2—Corporations by States with or without corporate farming laws in 1982, ranked by number reporting with more than 10 shareholders, percentage change 1969–82[1]

State	More than 10 shareholders[2]						10 or fewer shareholders[2]						All			
	Number 1982	Acres 1982	Sales 1982	Change in number 1969–82	Change in number 1974–82[3]	Change in number 1978–82[4]	Number 1982	Acres 1982	Sales 1982	Change in number 1969–82	Change in number 1974–82[3]	Change in number 1978–82[4]	Number 1982	Change in number 1969–82	Change in number 1974–82[3]	Change in number 1978–82[4]
	No.	*Thou.*	*Mil. dols.*	*Percent*			*No.*	*Thou.*	*Mil. dols.*	*Percent*			*No.*	*Percent*		
States with corporate farming laws:																
Texas	219	2,928	548	62.2	2.8	17.1	3,038	2,456	1,040	186.9	147.4	21.3	3,257	172.8	126.0	21.0
Iowa	123	86	214	80.0	64.0	43.0	3,987	11,000	2,775	621.0	294.0	54.4	4,110	561.8	287.1	54.0
Nebraska	105	646	59	150.0	61.5	61.5	2,908	6,293	1,914	371.3	160.6	24.9	3,013	357.2	155.1	25.9
Wisconsin	96	109	122	54.8	1.1	60.0	2,097	1,181	564	313.6	166.8	40.3	2,193	285.4	148.9	41.0
Minnesota	81	77	97	65.3	26.6	72.3	1,501	1,321	504	265.2	122.4	11.3	1,582	243.9	114.1	13.3
Missouri	63	57	34	96.9	-10.0	21.2	1,957	1,621	340	280.7	172.9	23.3	2,020	270.0	156.7	23.2
Kansas	63	58	415	53.7	1.6	50.0	1,813	3,394	2,037	531.7	188.2	26.2	1,876	472.0	171.5	26.9
South Dakota	36	187	30	157.1	100.0	9.1	849	392	288	242.3	99.3	8.3	885	237.8	99.3	8.3
Oklahoma	32	50	74	77.8	-5.9	33.3	854	1,646	438	364.1	197.6	31.2	886	338.6	176.0	31.3
North Dakota	4	23	4	-50.0	-63.6	-33.3	181	334	48	103.4	191.9	44.8	185	90.7	153.4	41.2
10-State total	822	4,221	1,597	75.3	16.3	36.5	19,185	29,638	9,948	329.3	176.5	29.2	20,007	305.2	161.7	29.5
States without corporate farming laws:																
California	356	1,341	420	64.1	-4.6	0	4,493	5,861	4,627	161.7	101.7	27.8	4,849	150.7	86.4	25.2
Florida	211	1,912	553	62.3	-1.9	.5	3,044	2,656	1,469	97.8	66.2	20.7	3,255	95.0	59.1	19.1
Montana	100	1,718	52	316.7	163.2	85.2	2,236	15,164	420	211.4	88.8	14.2	2,336	214.88	91.2	16.1
Ohio	95	55	48	82.7	30.1	41.8	1,559	696	362	201.6	129.6	35.6	1,654	190.7	120.0	35.9
Illinois	87	98	60	38.1	33.8	6.1	1,779	1,298	543	232.5	273.7	40.5	1,866	212.0	244.9	38.4
North Carolina	77	85	85	10.0	-10.5	8.4	1,148	709	437	19.5	118.7	-22.8	1,225	18.8	100.5	-21.4
Washington	75	268	266	97.4	13.6	19.1	1,968	3,056	911	293.6	119.2	27.3	2,043	279.7	119.9	27.0
Indiana	75	35	39	92.3	53.1	23.0	2,347	1,360	648	330.6	199.4	32.8	2,422	314.7	190.8	32.5
Louisiana	68	302	60	-28.4	9.3	4.6	656	815	166	75.9	74.5	-3.9	724	54.7	60.5	-3.2
Utah	67	140	27	272.2	235.0	157.7	484	1,548	114	184.7	65.2	6.8	551	193.1	76.0	15.0
Idaho	63	210	88	293.8	40.0	80.0	1,112	2,361	665	122.0	67.5	.5	1,175	127.3	65.7	3.0
Colorado	62	374	291	55.0	-11.4	8.8	1,294	5,165	1,039	127.4	53.1	2.9	1,356	122.7	48.2	3.2
Arizona	62	1,716	952	59.0	-18.4	3.3	612	3,335	1,761	81.0	68.1	5.7	674	78.8	53.2	5.5
Georgia	60	108	78	71.4	22.4	13.2	894	894	286	97.8	120.2	-14.4	954	95.9	109.7	-13.0
Arkansas	58	61	101	3.6	-10.8	16.0	1,268	1,731	436	209.3	124.8	.7	1,326	184.6	110.8	1.3
Hawaii	57	505	285	42.5	-12.3	42.5	295	495	171	227.8	152.1	3.2	352	170.8	93.4	8.0
Oregon	56	552	67	329.4	19.2	27.3	1,255	3,391	472	206.8	118.6	24.0	1,311	207.8	111.1	24.1
Mississippi	46	140	67	91.7	2.2	24.3	840	1,236	290	112.1	82.6	-5.1	886	111.0	75.4	3.9
Virginia	45	45	35	28.6	-2.2	95.6	978	586	225	134.5	156.0	-20.5	1,023	126.3	139.0	-18.4
Pennsylvania	42	31	96	35.5	-25.0	0	857	252	305	139.4	68.4	-1.2	899	131.1	59.1	-1.1

See footnotes at end of table.

Table 2—Corporations by States with or without corporate farming laws in 1982, ranked by number reporting with more than 10 shareholders, percentage change in 1969–82[1]—Continued

State	More than 10 shareholders[2]						10 or fewer shareholders						All			
	Number 1982	Acres 1982	Sales 1982	Change in number 1969–82	Change in number 1974–82[3]	Change in number 1978–82[4]	Number 1982	Acres 1982	Sales 1982	Change in number 1969–82	Change in number 1974–82[3]	Change in number 1978–82[4]	Number 1982	Change in number 1969–82	Change in number 1974–82[3]	Change in number 1978–82[4]
	No.	Thou.	Mil. dols.	Percent			No.	Thou.	Mil. dols.	Percent			No.	Percent		
Wyoming	41	1,444	41	122.2	60.0	21.2	786	9,722	172	93.1	48.9	6.9	826	94.4	49.4	7.6
Michigan	35	309	368	29.6	20.7	40.0	912	488	296	264.8	135.7	19.7	947	241.9	127.6	20.3
New Mexico	32	2,077	30	33.3	-31.9	33.3	585	7,680	285	185.4	101.7	10.4	617	169.4	83.1	11.4
Maryland	32	14	58	88.2	18.5	45.4	487	241	146	157.7	85.2	-1.0	519	151.9	79.0	1.0
New York	31	17	22	63.2	-41.5	-8.8	1,354	597	374	160.9	54.9	12.8	1,385	157.4	49.4	12.2
South Carolina[5]	27	42	20	68.7	28.6	12.5	390	367	109	14.0	77.3	-9.1	417	16.5	73.0	-7.9
Tennessee	27	41	12	50.0	-20.6	35.0	484	229	85	87.6	186.4	-15.1	511	85.1	151.7	-13.4
Alabama	26	44	32	13.0	-33.3	4.0	487	365	165	110.8	121.4	-20.0	513	102.0	98.1	-19.1
Kentucky	20	20	41	-20.0	-42.9	5.3	741	373	164	104.7	145.4	5.0	761	96.6	125.8	5.0
Connecticut	17	7	30	88.9	-15.0	-10.5	234	44	81	112.7	51.9	21.9	251	110.9	44.3	19.0
Massachusetts	15	85	25	-6.3	-42.3	-31.8	398	7	87	121.1	46.3	16.0	413	110.7	38.6	13.2
West Virginia	13	7	4	116.7	30.0	85.7	167	107	26	165.1	153.0	25.6	180	160.9	136.8	28.6
New Jersey	13	4	4	-30.0	-27.8	8.3	550	136	145	128.2	63.7	-3.2	563	124.3	59.0	-2.9
Maine	10	14	66	150.0	-9.1	100.0	262	137	61	123.9	87.1	9.6	272	124.8	80.1	11.5
Nevada	10	310	8	66.7	-44.4	-16.7	188	3,184	68	106.6	64.9	-7.4	198	104.1	50.0	-7.9
Vermont	8	17	4	300.0	14.3	60.0	168	67	27	273.3	136.6	20.0	176	274.5	125.6	21.4
Delaware	6	9	17	50.0	-25.0	-14.3	184	138	75	234.0	139.0	28.7	190	251.9	123.5	26.7
Alaska	3	128	NA	50.0	200.0	0	26	116	NA	271.4	160.0	116.7	29	222.2	163.6	93.3
New Hampshire	2	28	21	0	-33.3	0	83	2	5	93.0	48.2	1.2	85	88.9	44.1	1.2
Rhode Island	2	1	1	100.0	0	0	49	8	3	122.7	58.1	11.4	51	121.7	54.6	15.9
40-State total	2,131	14,314	4,474	60.5	3.6	17.2	37,654	76,617	17,731	147.0	100.9	10.7	39,785	140.0	91.3	11.1
U.S. total	2,953	18,535	6,071	64.3	6.8	22.0	56,839	106,255	27,679	188.3	121.4	16.4	59,792	178.0	110.2	16.6

NA = Not available.

[1]The classifications of 10 or fewer shareholders and more than 10 shareholders are thought to provide reasonable proxies of corporations that are closely held family operations and those that are held by larger numbers of people who are not necessarily members of the same family. In addition to classifying number of shareholders, the Bureau of the Census classified farm corporations as "family held" and "other than family held" in a 1982 U.S. summary table for both 1982 and 1978. In 1982, from among the 59,792 enumerated farm corporations, the Census Bureau classified 88.1 percent as "family held" and 11.9 percent as "other than family held." In 1978, 88.4 percent of all the farm corporations were classified as family held and 11.6 percent as other than family held. In 1982, from among 52,180 farm corporations with sales of $10,000 or more, 89 percent were classified as family held. In 1978, the percentages were 88.2 and 11.8 percent, respectively. The same information is available for each State in table 5, page 180, and table 16, page 278, Vol. 1, part 51, *U.S. Summary and State Data, 1982, Census of Agriculture*, U.S. Department of Commerce, Bureau of the Census. [2]Includes both public and private corporations. [3]The *1974 Census of Agriculture* placed about 1,000 corporations into a number of "shareholders not reported" and "publicly held" groups. Respondents reporting 11 shareholders or more, publicly held, and other and shareholders not reported were placed in the "more than 10 shareholder" group. Thus, the number of shareholders in the "more" or "fewer than 10 shareholder" groups may not be the same as reported in table 3, *State Regulation of Corporate Farming*, AER-409, Economic Research Service, U.S. Department of Agriculture, December 1978 and in *Corporate Farming: Importance, Incentives, and State Restrictions*, AER-506, Economic Research Service, U.S. Department of Agriculture, December 1983. The percent change in number of farm corporations shown where the 1974 numbers are used in this table may also be different than those shown in tables 2 and 3, respectively, of the USDA publications titled *State Regulation of Corporate Farming* and *Corporate Farming: Importance, Incentives, and State Restrictions*. [4]1978 data were taken from the *1978 Census of Agriculture* State-published volumes that include farms enumerated in a supplemental area sample survey. The 1978 data as published in the *1982 Census of Agriculture State Volumes* exclude the 1978 area sample data and differ slightly from the *1978 State Census Volumes*. [5]South Carolina enacted legislation that provides for taxing property of certain corporations differently starting in 1982.

NOTES (a) With the exception of 1974, all figures exclude abnormal and "other" farms. (b) The census forms are mailed soon after the end of the year for which the data are collected. Completion, return, processing, and printing of State volumes take considerable time. The last State volume for 1982 became available on December 27, 1984, the shortest time elapsed time since corporate farm data were first collected in 1969. The next *Census of Agriculture* is scheduled for 1987. Thus, based on experience with the 1982 census, the 1987 corporate farm data, using the procedure on which this table was based, could be available by mid-1990. Preliminary State and U.S. totals and some final State volumes could be available in late 1988 or early 1989.

Sources: U.S. Department of Commerce, Bureau of the Census, *1969 Census of Agriculture*, Vol. 2, Ch. 3. *1974 Census of Agriculture*, Vo1. 4. *1978 Census of Agriculture*, Vo1. 1, Parts 1-51. *1982 Census of Agriculture*, Vol. 1, Parts 1-50.

Table 3—Farm corporations as a percentage of all farms with sales of $2,500 or more, by State, 1969–82

State[1]	More than 10 shareholders												10 or fewer shareholders												All sales			
	Number				Acres				Sales				Number				Acres				Sales							
	1969	1974	1978	1982	1969	1974	1978	1982	1969	1974	1978	1982	1969	1974	1978	1982	1969	1974	1978	1982	1969	1974	1978	1982	1969	1974	1978	1982
	Percent																											
States with corporate farming laws:																												
Texas	0.1	0.2	0.1	.2	1.9	2.9	2.2	2.4	6.3	15.7	9.9	6.2	0.9	1.1	1.9	2.5	5.0	4.5	7.4	8.9	16.7	15.9	23.4	31.2	23.0	31.6	33.3	37.5
Iowa	.1	.1	.1	.1	.2	.2	.2	.3	.7	.9	.7	2.2	.4	.9	2.2	3.7	1.0	2.0	4.6	7.6	2.1	3.9	8.3	10.6	2.8	4.8	9.0	12.8
Nebraska	.1	.1	.1	.1	1.0	1.1	1.1	1.4	1.1	5.9	2.6	.9	1.0	2.4	3.8	5.1	5.9	8.6	12.4	14.1	11.5	15.0	23.5	28.9	12.6	20.9	26.1	29.8
Wisconsin	.1	.1	[2]	.1	.6	.7	.6	.6	1.2	2.8	2.1	2.5	.7	1.0	2.0	2.9	2.0	3.2	5.1	7.1	4.0	6.0	8.8	11.6	5.2	8.8	11.0	14.1
Minnesota	.1	[2]	.1	[2]	.2	.2	.2	.2	.6	.9	.9	1.6	.5	.7	1.5	1.8	.9	2.0	4.5	4.9	3.8	5.9	9.0	8.5	4.4	6.8	9.9	10.1
Missouri	[2]	[2]	.1	[2]	.1	.2	.2	[2]	.3	1.3	.6	1.0	.6	.8	1.6	2.2	1.6	2.6	4.3	6.0	3.4	5.0	7.7	9.5	3.7	6.3	8.5	10.5
Kansas	.1	[2]	.1	[2]	.2	.3	.1	[2]	4.7	4.4	6.4	6.7	.4	.9	2.1	2.8	1.1	2.9	5.8	7.3	9.9	16.6	27.2	33.0	14.6	21.0	33.6	39.7
South Dakota	[2]	[2]	.1	.1	.1	.1	.3	.5	.7	1.3	1.2	1.2	.6	1.0	2.1	2.4	3.6	5.5	7.7	1.0	3.6	6.8	9.7	11.6	4.3	9.3	10.9	12.8
Oklahoma	[2]	.7	[2]	.6	[2]	.3	.2	[2]	4.1	2.5	2.4	2.9	.4	.7	1.1	1.6	1.5	2.2	4.3	5.4	8.1	13.0	19.3	17.5	12.2	15.5	21.7	20.4
North Dakota	[2]	[2]	[2]	.1	[2]	[2]	[2]	[2]	.2	.2	.1	.2	.2	.1	.3	.5	.4	.3	.6	.8	.8	.6	1.5	2.1	1.0	.8	1.6	2.3
10-State total	.1	.1	.1	.1	.4	1.1	.5	.5	2.0	4.4	2.7	3.0	.6	1.0	1.9	2.7	2.3	3.8	5.7	6.9	.6	9.5	13.9	18.7	.8	13.9	16.5	21.7
States without corporate farming laws:																												
California	.4	.7	.6	.6	4.5	6.3	4.2	4.4	6.2	10.7	9.2	3.4	3.2	4.3	6.2	7.8	10.5	12.4	18.4	19.0	25.4	25.9	30.6	37.1	31.6	36.6	39.8	40.5
Florida	.6	.1	.8	.8	11.6	13.3	11.4	15.8	10.7	18.3	17.0	15.8	7.7	8.7	9.0	12.6	20.3	20.2	24.8	21.9	34.2	34.8	37.9	41.8	44.9	53.1	54.9	57.6
Montana	.1	.1	.3	.5	.9	1.4	1.3	2.8	1.5	2.6	4.6	3.4	3.5	5.8	9.3	11.3	15.4	20.3	27.3	25.3	14.1	18.3	24.1	27.2	15.6	20.9	28.7	30.6
Ohio	.1	.1	.1	.1	.1	.1	.2	.3	1.2	1.4	1.0	1.4	.8	.9	1.6	2.2	1.5	1.8	3.3	4.8	4.9	6.2	8.2	10.7	6.1	7.6	9.2	12.1
Illinois	.1	[1]	.1	[2]	.2	.3	.4	.3	.6	.9	.8	.9	.5	.4	1.3	2.0	1.1	1.0	2.9	4.5	3.1	2.7	5.6	7.4	3.7	3.6	6.4	8.3
North Carolina	.1	.1	.1	.1	.8	.8	.9	.9	.8	1.5	2.1	2.4	1.5	.8	2.3	2.1	3.4	3.4	5.5	7.7	6.6	6.4	10.7	12.5	5.9	7.9	12.8	14.9
Washington	.1	.3	.3	.3	.3	1.0	1.9	1.6	5.4	6.4	2.9	9.4	2.3	4.2	6.3	8.3	7.9	12.4	19.9	19.1	13.5	19.7	32.8	32.3	18.9	26.1	35.7	41.7
Indiana	.1	[2]	.1	.1	.1	.2	.3	.2	.9	.9	1.0	.9	.8	1.1	2.5	3.6	1.5	2.7	6.1	8.6	4.4	6.8	11.2	15.4	5.3	7.7	12.2	16.3
Louisiana	.4	.4	.3	.3	4.0	4.4	3.8	3.7	3.2	6.3	4.5	4.3	1.9	2.0	3.0	3.3	5.9	6.8	10.0	9.9	9.4	9.3	10.8	11.8	9.4	15.6	15.3	16.1
Utah	.2	.2	.3	.6	.8	2.1	1.1	1.6	.9	2.7	.9	4.9	2.0	3.3	4.6	4.9	12.1	19.9	20.6	15.9	11.1	16.4	24.5	20.7	12.0	19.1	25.4	25.6
Idaho	.1	.2	.2	.3	.8	2.3	.7	1.5	2.9	5.8	2.0	3.9	2.6	3.3	5.3	5.6	14.7	16.3	20.0	17.3	18.8	17.0	32.1	29.8	21.7	22.8	34.1	33.7
Colorado	.2	.3	.2	.2	1.6	2.0	1.8	1.1	3.8	17.9	11.6	9.9	2.7	4.0	5.6	6.2	9.8	12.4	14.9	15.9	35.3	23.7	36.7	35.4	15.6	41.6	48.3	45.3
Arizona	.9	.2	1.2	1.2	11.7	14.4	13.5	15.6	5.1	15.0	9.4	8.8	7.9	3.4	11.6	12.6	19.7	19.7	21.1	20.8	49.4	43.7	41.2	45.7	54.5	58.7	50.6	54.5
Georgia	[2]	.1	.1	.1	.4	.5	1.1	.9	.5	4.7	2.9	2.8	1.2	1.1	2.7	2.6	4.0	5.0	7.2	8.1	5.7	6.5	9.8	10.4	6.2	11.2	12.7	13.2
Arkansas	.1	.2	.1	.1	.7	.4	.3	.4	1.1	9.2	4.0	3.5	1.2	13.0	3.1	1.7	4.9	5.0	10.6	13.0	9.7	15.3	13.6	15.5	10.8	24.5	17.6	19.0
Hawaii	1.7	3.1	1.4	1.8	34.3	32.6	16.1	26.2	55.0	71.0[3]	34.8	51.2	3.9	5.5	9.9	9.3	26.0	9.0	34.0	25.7	28.2	5.1[3]	40.5	30.7	83.2	76.0[3]	75.3	81.9
Oregon	[2]	.2	.2	.2	1.2	4.0	3.6	3.2	.7	4.7	3.6	4.1	2.4	3.3	4.9	6.1	14.3	14.1	18.8	19.8	14.9	18.6	26.2	29.0	15.6	23.3	29.8	33.1
Mississippi	[2]	.1	.1	.1	.7	.5	.9	1.2	1.4	3.7	2.3	3.5	1.6	1.7	2.9	3.2	5.7	7.1	10.8	11.3	10.2	10.1	14.3	15.3	11.6	13.8	37.9	18.8
Virginia	.1	.1	.1	.1	.7	1.0	.4	.5	1.5	1.9	1.6	2.2	1.3	4.8	3.2	2.7	3.9	3.8	6.2	7.0	7.4	10.5	13.0	14.1	8.9	12.4	14.6	16.4
Pennsylvania	[2]	.1	.1	.1	.5	.5	.5	.4	2.8	3.7	4.4	3.4	.9	1.3	2.0	1.3	2.1	2.6	3.3	3.4	6.5	9.3	11.2	10.7	9.3	13.0	15.6	14.1

See footnotes at end of table.

Table 3—Farm corporations as a percentage of all farms with sales of $2,500 or more, by State 1969-82—Continued

State[1]	More than 10 shareholders												10 or fewer shareholders															
	Number				Acres				Sales				Number				Acres				Sales				All sales			
	1969	1974	1978	1982	1969	1974	1978	1982	1969	1974	1978	1982	1969	1974	1978	1982	1969	1974	1978	1982	1969	1974	1978	1982	1969	1974	1978	1982
	Percent																											
Wyoming	0.2	0.3	0.5	0.5	2.2	0.1	5.6	4.8	1.2	.2	2.3	6.8	0.9	10.6	10.5	10.8	29.8	29.2	32.6	32.5	23.8	21.5	34.6	28.4	25.0	21.7	36.9	35.2
Michigan	[2]	[2]	.1	[2]	.2	[2]	.3	.3	.5	.7	1.3	1.4	.6	13.3	1.6	2.0	1.5	2.1	3.6	4.8	5.2	6.6	9.2	11.5	5.7	7.3	10.5	23.5
New Mexico	.3	.6	.3	.3	3.5	[2]	3.9	4.5	1.6	12.7	8.3	3.5	2.7	3.7	5.8	6.7	17.3	15.4	22.1	16.9	31.9	25.7	31.4	33.7	33.5	38.4	39.7	37.2
Maryland	.1	.2	.2	.2	.9	.9	.6	.5	1.3	2.6	3.5	5.7	1.6	2.2	3.6	3.9	3.8	6.0	8.7	10.1	7.3	11.0	11.8	14.2	8.6	13.6	15.3	19.9
New York	[2]	.1	.1	[2]	.2	.3	.3	.2	1.1	2.2	.9	.9	1.5	2.7	3.4	4.2	2.5	4.2	5.7	7.1	8.6	12.1	14.7	15.5	9.7	14.3	15.6	16.4
South Carolina	[2]	[2]	.1	.1	.8	[2]	.6	.8	.6	9.8	2.6	.8	2.0	.5	2.3	2.4	4.7	4.5	7.6	7.5	6.7	7.1	10.0	4.4	7.3	16.9	12.6	5.2
Tennessee	[2]	[2]	[2]	[2]	.4	.2	.3	.3	1.0	.4	.9	.7	.6	.3	.9	.7	1.1	.9	2.1	2.1	3.1	2.8	4.8	2.3	4.1	3.2	5.7	3.0
Alabama	[2]	[2]	.1	[2]	.3	.5	.3	.5	.9	2.6	2.3	1.9	.8	7.5	1.8	1.6	2.0	2.6	4.2	4.1	3.2	6.6	8.3	9.8	4.1	9.2	10.6	11.7
Kentucky	[2]	[2]	[2]	[2]	.2	[2]	.2	.1	.3	.1	.4	1.7	.6	.4	.8	.9	1.3	1.3	2.2	2.8	2.5	3.4	5.0	7.0	25.0	3.5	5.4	8.7
Connecticut	.3	.8	.7	.6	3.2	3.4	3.5	1.9	12.8	15.1	9.7	10.6	3.8	6.2	6.9	9.2	7.0	7.9	9.6	11.8	18.1	15.6	19.4	28.5	30.9	30.7	29.1	39.1
Massachusetts	.4	.8	.6	.3	5.5	3.2	4.1	3.0	7.7	11.2	11.8	7.4	4.9	8.5	8.9	10.5	7.4	11.4	11.9	15.3	21.8	28.8	26.1	25.9	29.5	40.0	37.9	33.3
West Virginia	[2]	.1	.1	.1	.2	[2]	.3	.2	.6	2.4	2.7	1.7	.9	1.0	1.4	1.8	1.7	2.3	3.4	4.3	7.5	7.4	9.7	11.2	8.1	6.8	12.4	12.9
New Jersey	.1	1.3	.2	.2	.4	1.1	.5	.4	1.6	2.1	.6	.9	4.3	6.1	8.5	9.2	9.2	11.2	13.0	16.2	18.2	24.9	28.3	33.5	19.8	27.0	28.9	34.4
Maine	[2]	.2	.1	.2	.5	1.4	.5	1.1	1.9	3.6	1.5	16.6	2.3	3.0	4.8	5.8	7.0	7.7	10.6	11.6	11.0	13.4	26.1	15.4	12.9	12.8	27.6	32.0
Nevada	.3	1.1	.6	.4	7.1	.1	4.3	3.1	6.3	2.2	5.6	4.0	5.7	7.0	10.0	9.3	34.1	27.0	29.4	32.7	24.9	34.3	38.4	33.7	31.2	36.5	44.0	37.7
Vermont	[2]	.1	.1	.1	.1	.1	.2	1.2	.1	D	.2	1.1	.9	1.5	2.9	3.6	1.6	4.8	4.5	4.8	2.3	5.8	6.6	7.3	2.4	5.8	6.8	8.4
Delaware	.1	.2	.2	.2	1.8	.4	2.1	1.4	5.1	D	4.5	4.6	1.8	2.5	4.5	6.5	6.6	12.2	15.1	21.6	8.3	18.4	19.4	20.3	13.4	18.4	23.7	24.9
Alaska	1.3	.5	1.4	.9	3.2	D	16.1	20.6	[2]	[2]	7.7	[2]	4.7	4.9	5.4	8.5	30.9	26.2	13.9	18.7	8.2	[2]	20.5	NA	8.2	[2]	28.2	D
New Hampshire	.1	.2	.1	.1	.1	D	[2]	7.8	NA	D	.3	4.9	2.6	3.8	4.6	5.1	3.4	5.0	6.6	.5	9.5	18.6	28.7	20.6	9.5	.1	29.0	25.5
Rhode Island	.2	.4	[2]	.4	.2	D	[2]	[2]	[2]	D	NA	3.3	4.8	7.3	8.5	10.7	8.6	[2]	18.0	[2]	25.8	27.2	NA	43.3	25.8	27.2	D	46.6
40-State total	.3	.3	.3	.3	2.7	2.1	2.7	2.6	3.8	2.4	4.7	4.1	2.6	2.0	4.9	3.7	9.2	10.5	12.8	14.0	13.3	12.8	19.7	20.0	17.1	18.7	24.4	24.1
50-State total	.2	.3	.3	.1	2.2	1.6	2.3	1.9	3.4	2.8	4.3	3.8	2.2	1.5	4.3	3.3	7.8	7.5	11.4	10.9	10.9	11.6	18.5	19.5	15.3	16.9	22.8[4]	23.3

D = Figure not disclosed to ensure privacy of individuals.
NA = Not available.

[1] States are shown according to ranking in table 2.
[2] Less than 0.05 percent.
[3] Discrepancy seems to exist in the 1974 U.S. census sales data for the more than 10 and 10 or fewer shareholder corporations, but the 1974 sales of all corporations seems to be in line with the total for other census years.
[4] 1978 data were taken from the *1978 Census of Agriculture* State-published volumes that include farms enumerated in a supplemental area sample survey. The 1978 data as published in the *1982 Census of Agriculture State Volumes* exclude the 1978 area sample data and differ slightly from the *1978 State Census Volumes*.

Note: All figures exclude abnormal and "other" farms, which are institutional farms, experimental and research farms, Indian reservations, and cooperatives.
Sources: U.S. Department of Commerce, Bureau of the Census, *1969 Census of Agriculture*, Vol. 2, Chap. 3. *1974 Census of Agriculture*, Vol. 4, Part 5. *1978 Census of Agriculture*, Vol. 1, Parts 1-51. *1982 Census of Agriculture*, Vol. 1, Parts 1-50.

Sole proprietorship was the form of business organization most used by large-scale farms in 1982. The sole proprietorship form of business organization was used by 39.7 percent of the farms with sales of $500,000 or more in 1982 (table 6). Nearly as many farms, or 37.2 percent, used the corporate form of business. The partnership form of business organization was a distant third at 22.3 percent.

Of the 27,800 farms with sales of $500,000 or more in 1982, 9,190 farms had sales of $1 million or more and they accounted for nearly a quarter, or 23 percent, of total farm sales in 1982. They had only 5.1 percent of the farmland acres. Only 1,067 farms made sales of $5 million or more and accounted for less than half a percent of all U.S. farms in 1982. They held 0.7 percent of the farmland acres. These farms accounted for about 12 percent of the Nation's farm sales in 1982. Not all of the farms with sales of $1 million or more were incorporated, but as farms increased in size, a higher proportion were incorporated. In 1982, 49 percent of the farms with sales of $1 million and more were incorporated and about 80 percent of the farms with sales of $5 million and more were incorporated.

Table 4—Large-scale farms and all incorporated farms: Percentage change between 1974 and 1982

Item	1974	1982	Change
	Percent of all farms		
Farms with sales of $500,000 or more:			
Total farms	0.5	1.2	0.7
Land in farms	5.3	10.5	5.2
Value of sales	22.5	32.4	9.9
All incorporated farms:			
Total farms	1.0	2.6	1.6
Land in farms	10.1	12.8	2.8
Value of sales	17.7	23.3	5.6

Sources: U.S. Department of Commerce, Bureau of the Census, *Census of Agriculture*, 1974 and 1982.

Table 5—Large-scale farms compared with all incorporated farms, 1974 and 1982

Item	1974	1982	Change
	------*Number*------		*Percent*
Farms with sales of $500,000 or more:			
Total farms	11,421	27,800	143.4
Land in farms (1,000 acres)	53.844	103,590	92.3
Value of sales (million)	18,305	42,764	133.6
All incorporated farms:			
Total farms	27,637	59,792	116.3
Land in farms (1,000 acres)	71,347	124,790	74.9
Value of sales (million)	14,298	33,750	136.0

Sources: U.S. Department of Commerce, Bureau of the Census, *Census of Agriculture*, 1974 and 1982.

Use of a Corporate Form of Business Organization

The Federal income tax provided a major incentive for family farms to incorporate in the 1970's. Large-scale farms also used the corporate form of business organization to save on Federal income taxes. Prior to the Economic Recovery Tax Act of 1981, farmers needed $25,000-30,000 of taxable income to incorporate to save on Federal income taxes. After all provisions of the act were in effect, $35,000–40,000 was required (*1*, *4*). The data indicate that less than half of all farms with sales of $500,000 or more in 1982 were incorporated. But, as sales increased beyond $500,000, more of the farms were incorporated.

The use of sole proprietorships or partnerships by some large-scale farms was probably associated with several factors. For example, some farms were likely involved with small, value-added activities such as final fattening of feeder cattle. Gross sales of such farms could be large but net taxable income small. In other cases, the farms with large gross sales may have added substantial value such as growing a crop or carrying pork production from

Table 6—Corporations as a percentage of farms with sales of $500,000 or more, 1982

Item	Total	Percentage of large-scale farms
	Number	*Percent*
Family farm corporations	8,623	31.1[1]
Other than family corporations	1,688	6.1[1]
Sole proprietors	11,046	39.7
Partnerships	6,204	22.3
Other (cooperatives, estates, and trusts)	230	.8
Total	27,800	100.0

[1]As farm sales increase, the percentage of farms operating as corporations increase; 49 percent of those with sales between $1 to $5 million and about 80 percent of those with sales of $5 million or more operated as corporations.

Sources: U.S. Department of Commerce, Bureau of the Census, *Census of Agriculture*, 1974, 1978, 1982.

farrowing to marketing finished hogs. If such firms were locked into high interest rates, however, they, like the small value-added firms, may have had insufficient taxable income to be motivated to incorporate.

In addition, the minimum $25,000-40,000 net taxable income needed to make incorporating worthwhile in tax savings allowed the operator to cover only minimum expenses associated with incorporation. The minimum taxable income levels were insufficient to offset the extra work and expenses involved in staying abreast of new tax provisions affecting corporations and in keeping records for both the sole proprietor household and the corporation. In deciding whether or not to incorporate, some large-scale farm operators who are sole proprietors or partners may have decided that they needed higher taxable incomes to justify the change.

Census data also revealed that incorporated farms were more numerous than farms with sales of $500,000 or more in 1982. There were over 30,000 such incorporated farms. They probably incorporated for several reasons. In 1982, some farms with sales of $250,000 or less could have had taxable incomes of $30,000 or more, especially where value added was labor intensive, interest payments were low, and yields and rates of gain were above average.

Besides saving on Federal income tax costs, many farm firms incorporated to become eligible for several extra incentives. The incentives in some cases are more important. Some farmers have even been willing to pay more Federal income taxes as a corporate entity to take advantage of the extra incentives.

Incorporating facilitates estate planning and eases transfer of ownership through the use of corporate shares of stock before or upon death (2). Assuming corporate status may also help to improve the continuity of management to the next generation. It shows heirs that parents are serious about bringing them into the farm business while the parents are still living. In some cases, owners of farm corporations are able to fix liability of the farm business to the corporate assets and avoid personal liability for the activities of the corporate entity. Furthermore, nonoperating shareholders may be more willing to leave their farm income in an incorporated farm business or even invest some of their personal assets in the corporate business rather than make loans to sole proprietor or partnership farm operators. Farm corporations can sometimes provide owners and operators better fringe benefits than farms operating under the limitations of sole proprietorships and partnerships.

Because of the rapid increase in the number of farm corporations in the 1970's, questions are frequently asked about the likelihood of increase in the 1980's and beyond. Although trends can be projected statistically, four census enumerations are too few on which to place much reliability of outcome. Furthermore, many farms are finding net taxable income declining in the 1980's due to falling commodity prices. Input costs, including the cost of credit, are not falling as rapidly, however. Thus, one of the major incentives to incorporate, Federal income tax savings, may be on the decrease. And tax reform enacted in October 1986 may lower the incentive to incorporate strictly from a Federal income tax savings standpoint.

Recent Change in Iowa's Corporate Farms: A Case Study

The rate of increase in the number of corporate farms slowed nationally in 1978-82, according to Bureau of the Census data. Several regions of the country, however, began experiencing serious financial strains in the early 1980's. We feature Iowa as a case study because it is a State with a corporate farm reporting law that faced some of the more stressful financial conditions that began in 1981-82. Because the 1987 census data on corporate farms which would reflect this effect will not be available until 1988 or 1989, we used more recent data from the State of Iowa.

Two hypotheses on the trend in corporate farm numbers since 1982 can be advanced:

1) Corporate farm operators may have become better managers partly as a result of going through the incorporation process. Thus, fewer family farm corporations may have gone out of business than other kinds of farms, or

2) Farm corporations may have been trying to grow more rapidly than noncorporate farms by using more financial leverage. Consequently, a higher percentage of them may be ceasing farming activities, at least as corporate legal entities.

Table 7 tends to support the first hypothesis. The number of family farms operating as corporations in Iowa in 1985 was at an all-time high, while the drop in authorized corporations (other than family) from the 1982 high was only 22. The number of all corporations involved in agricultural activities dropped 2.7 percent in 1985 from its high in 1982, but the acres owned and operated shrank by less than 1 percent.

The director of the corporate division in the Iowa Secretary of State's Office offered several observations on the data. Some of the decrease in number of corporations may have been associated with Iowa legal requirements for divestiture of agricultural activities. He also attributed some of the downturn to authorized corporations which sold off their agricultural activities given the less-than-bright profit prospects in Iowa. Some of the increase in numbers of family farm corporations from 1983-85 show that the Iowa data may have resulted from extra efforts that the Iowa Secretary of State's office made to inform entities of reporting requirements. The director's overall impressions of the number of Iowa corporate family farms was that of a rapid increase from 1976 through 1982 and a leveling off between 1983-85. Because no financial information had been collected, we could not compare the financial condition of Iowa's corporate farms with that of other kinds of farms in the State.

The rate of increase in the number of limited partnerships involved in agricultural activities in Iowa was greater between 1976-85 than the increase in any corporate category. However, the number of limited partnerships had grown to less than half the number of authorized corporations in 1985. The number of corporations and partnerships reported to the Office of the Iowa Secretary of State differed significantly from the number reported by the Bureau of the Census and IRS in both 1978 and 1982. Different numbers were expected, given the difference in reporting and classification requirements between the three agencies. The number of

Table 7—Corporations and limited partnerships involved in agricultural activities in Iowa, 1976–85

		Corporations[2 3]				
Year	Limited partnerships[1]	Family	Authorized	Other[4 5]	Total corporations	Acres owned and operated
	Number					*Thousand*
1976	54	1,598	343	990	2,931	599
1977	64	1,795	363	934	3,092	630
1978	79	2,233	396	997	3,626	747
1979	127	2,535	420	992	3,947	792
1980	165	2,943	435	1,067	4,445	904
1981	212	3,412	472	1,071	4,955	1,013
1982	261	3,891	494	1,111	5,496	1,159
1983	266	3,949	481	1,053	5,483	1,172
1984	237	3,871	448	922	5,241	1,140
1985	230	4,022	472	853	5,347	1,163

[1] Total acreage of limited partnerships was 22,836 in 1976 and 76,641 in 1985. In 1985, 121 of the limited partnerships were involved in "other livestock" and 104 were involved in "other crops."

[2] Corporations that are involved in agricultural operations in Iowa were required to file annual reports by March 31 of each year to show their activities as of January 1 of that year. An Iowa statute specifically describes family and authorized corporations. Family corporations roughly correspond to the "10 or fewer shareholder" corporations as defined by the U.S. Census of Agriculture.

[3] The Corporate Division, Office of the Iowa Secretary of State, expended extra effort in 1983–85 to inform corporations of the State reporting requirements. This may partly account for the increase in number of reported family farms in 1985. The 1985 increase may also have resulted from two factors: an actual increase in family farms that incorporated and some formerly authorized or other corporations reporting under the "family farm" category.

[4] The "other" category includes all corporations involved in farm production in Iowa that are not included in the statute definition of family or authorized (such as trusts other than authorized, family, or testamentary, and certain cooperatives which were legally operating in Iowa.)

[5] The decrease of 258 (23 percent) in the number of other corporations between 1982 and 1985 may be due to several factors. The Iowa statute, for instance, required that any processor that owned, controlled, or operated a feedlot was required to dispose of it by July 1, 1985. The statute required that certain corporations which purchased farmland had to have an immediate or potential alternative use for it; when the farmland was converted, the corporations would no longer need to report it under the Farm Reporting Act. In addition, the nonresident alien statute required that farmland be put to alternative uses in 5 years. Such corporations would then not report under Iowa's farm acts. Also, some of the corporations classified under "other" may have decided that the prospects for continuing to be involved in farmland ownership were unfavorable and disposed of their holdings.

corporate farms enumerated by the Iowa reporting system was greater than either the census or IRS number in 1978 and 1982. This statistical difference does not imply underenumeration by the definitions used by the latter two agencies.

Corporate Real Estate and Other Farm Lenders

General fiscal, monetary, and trade policies have been associated with major decreases in the prices of some farm commodities in the 1980's. Thus, the 1980's have seen decreases in farm asset values in areas made up of major livestock, food grain, and feed grain producers. At farm auctions in some parts of the country during 1984-86, farm chattel property such as used machines reportedly sold for as little as 20 percent of quoted retail prices. Farm real estate values in some States dropped by more than 60 percent between 1980-86. In some of the States hit hardest by the drop in values, brokers and lenders indicated that some of the lower grade farmland in certain communities had fallen by 75 percent or more by mid-1986.

Producers incurred some of the real estate and chattel debt during 1979-81 when farm asset values were at their peak. Due to extended repayment schedules, debt-laden farmers had paid off little principal by the mid-1980's when economic conditions deteriorated. Some farm operators and farm real estate owners, saddled with debt equal to or greater than the value of their farm assets, faced insolvency. Unable to project enough cash flow to renew their loans, many were denied credit. Such borrowers voluntarily liquidated some or all of their farm assets, some went into formal foreclosure, while others found themselves in bankruptcy court.

In some liquidation proceedings, farm real estate lending institutions and individuals obtained title to farm property. Although at the time published research reports were unavailable, there was widespread acceptance that not since the Depression of the 1930's had so many U.S. farmers lost their farms from foreclosure and bankruptcy proceedings. Consequently, questions were raised in the mid-1980's about whether corporate lending institutions could obtain ownership of enough farm real estate to exert control on parts of U.S. farm production.

As a group, farm real estate lenders are unlikely to obtain ownership of significant farm acreage (table 8). At the end of 1985, all lenders had outstanding loans equal to about 17.5 percent of the value of farm real estate. Even in the unlikely event that farmland values dropped another 50 percent, most of that value would generate enough cash flow to avert foreclosure. Discussions with U.S. Department of Agriculture specialists in farm real estate lending and financial institutions during 1986 suggested that the probability of farm real estate institutions obtaining title to even one-fifth of the properties for which they held loans was very small. Even if that should happen, farm real estate lenders would then hold less than 4 percent of all U.S. farm real estate based on early 1986 values.

The effect of lending institutions obtaining title to farm real estate will likely be felt most strongly in areas where the greatest number of properties change hands. If lenders continue to have local operators work farms on a competitive basis, the effects on communities may be minimal. Where lenders obtain ownership of substantial acreage in a community, farmland prices may be slow to rise if lenders decide to sell their holdings as prices start to move up. Price decreases could result from multiple acres and tracts being placed on the market at once.

The Delta, Corn Belt, Lake States, and Northern Plains regions plus selected States like Texas have been identified in Economic Research Service (ERS) studies as experiencing the most severe financial problems in agriculture during the mid-1980's. Individual State data on farm real estate debt-to-asset value ratios indicate that not all States in those troubled regions have high ratios. Some States in other regions have high ratios. In the Lake States region, for instance, Minnesota and Wisconsin had the highest percentage of debt to farm real estate values at the end of 1985: 29.6 and 30 percent. By contrast, Arkansas, Mississippi, and Lousiana all had less than 20 percent of farm real estate values under long-term debt. Of the four Corn Belt States, Iowa, with 28.7 percent of its real estate value as debt, was the only one with long-term debt exceeding 25 percent of its farm real estate values. Ohio, the lowest, had only 17.3 percent. Thus, State aggregate data mask some problems of farmers who are either undergoing size reductions or who are liquidating.

The nature and extent of public regulation of the lending institutions holding farm debt may influence how these institutions take title to and hold farm properties. There are four major kinds of farm lending institutions. The Farmers Home Administration (FmHA) is a Federal agency directed by elected and appointed political officials. Federal involvement has increased in the Farm Credit System's bank activities as systemwide problems

Table 8—Farm real estate debt as a percentage of total farm real estate values for 48 States, December 1985[1]

State	Total value	Lending entity[2] Commercial banks	Federal land banks	Life insurance companies	All lenders
	Million dollars	Percent			
Alabama	8,755	1.8	7.3	1.1	14.0
Arizona	8,646	.7	1.8	2.5	8.3
Arkansas	11,275	2.5	6.7	3.2	18.3
California	51,518	1.3	7.4	3.7	17.0
Colorado	12,270	.7	9.0	2.8	19.2
Connecticut	1,675	.7	8.2	.1	11.8
Delaware	1,142	1.5	7.0	.1	13.7
Florida	18,660	1.7	6.7	3.2	15.2
Georgia	11,094	2.7	11.6	1.8	20.8
Idaho	9,469	.3	8.2	2.6	20.0
Illinois	32,809	2.5	8.3	2.2	18.5
Indiana	17,344	3.6	8.6	2.6	24.0
Iowa	28,243	2.5	9.8	3.2	28.7
Kansas	18,565	1.8	10.4	1.8	19.4
Kentucky	12,612	4.2	5.7	1.3	17.6
Louisiana	10,148	2.1	8.9	2.0	16.3
Maine	1,509	.3	3.0	.1	11.0
Maryland	5,001	1.3	6.6	.4	13.6
Massachusetts	1,871	.5	0	0	3.6
Michigan	10,674	2.2	11.0	.7	22.2
Minnesota	18,514	2.1	13.7	2.1	29.6
Mississippi	10,671	2.5	7.7	2.0	18.6
Missouri	18,673	3.7	6.1	2.2	19.9
Montana	12,438	.5	7.0	3.2	19.5
Nebraska	17,185	1.8	8.9	3.7	23.0
Nevada	1,753	.2	5.5	4.7	16.7
New Hampshire	889	.5	0	.5	3.8
New Jersey	3,717	.6	3.6	.1	8.3
New Mexico	6,015	.8	4.8	1.7	12.4
New York	7,582	1.3	6.1	.3	15.7
North Carolina	12,206	1.4	10.2	.6	17.4
North Dakota	12,957	1.0	9.8	4.2	18.0
Ohio	16,012	3.1	6.9	1.6	17.3
Oklahoma	15,876	1.9	7.4	1.0	16.6
Oregon	9,380	.2	9.0	2.2	22.7
Pennsylvania	12,612	2.8	4.9	.2	12.4
Rhode Island	282	.8	0	0	3.2
South Carolina	4,796	1.0	13.0	.5	19.1
South Dakota	9,568	1.0	7.0	1.3	20.3
Tennessee	13,290	2.6	4.1	.5	11.6
Texas	73,760	1.3	3.4	1.2	8.8
Utah	5,545	.5	5.2	.3	11.3
Vermont	1,888	1.9	4.4	.1	12.4
Virginia	10,977	1.4	6.1	.4	11.3
Washington	13,240	.8	6.8	3.1	16.8
West Virginia	1,881	3.1	3.9	.6	13.0
Wisconsin	12,593	4.9	12.6	1.0	30.0
Wyoming	5,359	.5	3.5	2.4	11.5
U.S. total	602,959	1.8	7.4	2.0	17.5

[1] Farm real estate values as of February 1, 1986. Real estate debt as of December 31, 1985. Life insurance company farm real estate debt as of December 31, 1985 was estimated as of May 1, 1986.
[2] Lending entities include commercial banks, Federal land banks, life insurance companies, Farmers Home Administration, individuals, and others.

Sources: (1) Preliminary data on farm real estate debt as of July 1, 1986 in preparation for *Economic Indicators of the Farm Sector, State Financial Summary, 1985*, Economic Research Service, U.S. Department of Agriculture, January 1987. (2) *Agricultural Resources: Agricultural Land Values and Markets*, Economic Research Service, U.S. Department of Agriculture, June 1986.

intensified in the 1980's. Commercial banks are chartered and regulated by the Federal or State government. Insurance companies, while State chartered, face the least public regulation of their farm lending, property management, and property disposal practices.

Commercial banks and life insurance companies which may increase their ownership of farm real estate were most often the focus of public-interest groups. These groups have long expressed concern about large corporations with direct involvement in farm production. Commercial banks and life insurance companies each held 2 percent or less of the value of farm real estate at the end of 1985 (see table 8). Life insurance companies held more than 3 percent of the value in eight States, and commercial banks held more than 3 percent in only six States.

Discussions with representatives of both commercial banks and insurance companies in the mid-1980's suggested that they were not planning to own, for the long term, the real estate they were obtaining. Some State statutes require disposal of the farm realty within a specified number of years. Neither lender was placing its new holding on the market at "fire sale prices." Rather, the institutions expected land prices to stabilize in areas where they had declined the most and to slowly increase to breakeven levels in other regions. Lenders then planned to sell off some of their holdings.

Life insurance lenders and most commercial banks have had the financial capacity to hold their farm real estate for long periods. They recognize that if they and other lenders assuming ownership were to announce their intentions of selling holdings at public auction (without reservation prices), farm real estate prices would likely decrease more. That drop, in turn, could place more of their borrowers at a disadvantage. Such a situation could result in lenders obtaining ownership of more farm real estate. In a limited number of cases, commercial banks that held farm real estate paper were failing in the mid-1980's. The Federal Deposit Insurance Corporation, in some cases, was obtaining the real estate loan paper but in the process had actually taken title to very little farm real estate.

In most States, Federal land banks (part of the Farm Credit System) held a higher percentage of outstanding real estate debt than did commercial banks and life insurance companies combined. Some Federal land banks in 1986 were trying to sell the farm real estate as soon as they obtained title. They did so by offering lower interest rates to buyers than those offered to their existing borrowers, when they could obtain their asking price. The lower interest rate offer seemed to be related to higher selling prices which were helping stabilize land values in areas where the Federal land banks were selling farm real estate. Although Farm Credit Banks, including Federal land banks, were coming under stronger control from the Farm Credit Administration in 1986, there was no indication that the Federal land banks were interested in long-term ownership and operation of agricultural real estate.

Preliminary data in the first part of 1986 indicated that the FmHA had taken title to more acres and numbers of farms than other farm lending institutions. FmHA, for the most part, was not trying to sell the farms to private owners. In view of the fact that FmHA has been a lender of last resort, the agency would be expected to lead in taking title to property in times of severe financial stress. Since the agency's policies are set in the national political process, FmHA is not likely to engage in large-size, corporate-type of farming activities but will continue to lease its holdings to local community farm operators or take the land out of intensive production. Individuals, trusts, and other real estate lenders were important holders of farm real estate loan paper in some States in the mid-1980's. Since members of these groups are so fragmented, their most likely course of action is to lease their farm real estate to individual farm operators.

While the role of lending institutions in ownership and subsequent control of agricultural production cannot be accurately projected, the institutions indicated they do not want to be major owners of farm real estate on a long-term basis. They are aware of the long-term low rates of returns earned by agricultural real estate which are typically below 4 percent per year. Because of the uncertainty of future land values, the cost of borrowing money, and the profit outlook for the agricultural commodities that can be grown on land owned by lending institutions, the number of farms that lending institutions may hold and the amount of time they may hold them is uncertain.

In 1985 and 1986, insurance companies were purchasing established commercial appraisal and farm management companies. They were expanding them to manage the farm real estate to which they took title. Many commercial banks already employed farm management specialists, or their farm lending officers took on added duties as managers of agricultural properties. The Federal land banks were also using commercial farm managers to manage the farms they were unable to sell. Thus, insurance companies and banks could continue to own and manage farm real estate for which they had taken title many years ago. In the mid-1980's, commercial lenders were taking title to farm real estate that was often leased to farm operators in the local community. The former property owners in some cases were able to lease back the real estate and continue as farm operators.

Some of the farm real estate to which lenders are taking title may be taken out of agricultural production if Federal farm programs continue to encourage removing highly erodable land from production. The practice of lending institutions owning agricultural land could result, in the long run, in improved efficiency. Improved efficiency could occur, for instance, if lending institutions are able to lease their land to more efficient operators than the former ones.

Trading tracts of land owned by lending institutions with those of individual landowners and farm operators could also result in operating efficiency gains. For example, owners and operators may trade for land near or adjacent to tracts they already operate. They may also trade for land that is more like their own or for which they intend to obtain specific machines and equipment. If the operators have specialized machines for contouring and terracing, for instance, they may be willing to trade land that does not require contouring or terracing for land that does. Or they may decide to obtain crop acres that will allow them to use 12- or 16-row crop machines or specialized grain machines.

If lending institutions decide to own farm real estate over the next few years, several different structural changes could develop. Farm managers handling that real estate might try lowering production costs by buying inputs jointly for all the farms they control. In turn, some restructuring could take place in the farm input chain specifically to meet those high-volume needs.

Discussions with lending institutions indicated that they may enter into direct production of agricultural commodities by setting up one or more farm operating units. Work would be done with their own employees and machines or production, in some cases, would be done on a custom basis. To move into direct production, lending institutions would likely require some incentives in production marketing that would give them a major advantage over leasing their land to existing farm operators. Incentives would probably take the form of specification production of commodities for processors, food manufacturers, or retailers. Some products of current biogenetic research and development work may lend themselves to contractual control throughout the food chain, from inputs into the production process to intermediate or final consumers.

In the mid-1980's, a possible but unlikely course would be for lending institutions to sell some or all of their tracts to a few corporations or limited partnerships. The new owners could then continue the same production practices, engage in large-scale input buying and product selling, or operate the farms themselves. The new owners might also trade, sell, or buy more privately owned tracts.

Although incentives may develop for landowner lending institutions to actively procure inputs and engage in direct or contract production, 20th-century precedents suggest they will not do so. Lending institutions for the most part have stayed within the bounds of financial activities, continually broadening their financial service activities in such areas as credit cards, managing and placing money for institutions, and some brokerage activities. When they have acquired properties and businesses, they have disposed of them as soon as they could.

Vertical Integration and Contracting

Vertical integration and contract production of farm commodities for corporate farm marketing firms have been associated with corporate involvement in farming. Vertical integration is the kind of vertical coordination that goes on within a firm, with two or more production or processing stages coordinated inside that firm. Contract production in farming involves the vertical coordination of farm production under agreements between farmers and processors, dealers, or others who usually deal directly with farmers. Some States, besides limiting corporate farming, limit certain aspects of vertical integration into farming and contract farming. The rationale for restricting these two practices seemed to be an interest in protecting independent family farmers from control or competition that integrators and firms that contract for farm production could impose. The most general restriction forbids vertical integration within a firm between farm production and some combination of input supply, marketing, or processing.

Farming activities of 410 vertically integrated firms were concentrated in crops and livestock that favor large operations and allow control over product perishability, uniformity, and timely availability (9). Beef cattle were produced by more than 25 percent of the firms and were the most common farming enterprise, followed by vegetables, fruits, and poultry (other than broilers). Most of the integration in livestock and poultry was by input firms, suggesting that an important motivation for integration was to provide an outlet for manufactured feeds. Vertical integration into crop and dairy farming was mostly by firms involved in processing and distribution.

Corporations apparently account for most of the vertical integration and contracting, both of which increased by over 50 percent from 19 percent of farm output in 1960 to 22 percent in 1970 and to about 30 percent in 1980 (*7*).[5] Contract production was, however, much more prevalent (22.9 percent of total farm output in 1980) than vertical integration (7.4 percent) (table 9).

In both 1960 and 1980, contracting was substantially greater for livestock than for crops: 38.2 versus 14.3 percent. The crops most heavily contracted were sugarbeets, vegetables for processing, seed crops, citrus fruits, potatoes, and sugarcane, ranging from nearly all of production of sugarbeets to 40 percent of the output of sugarcane. For livestock, contract production accounted for about 90 percent or more of fluid grade milk and broilers in both 1960 and 1980.

Vertical integration was equally important for crops and livestock. Sugarcane, vegetables for the fresh market, and potatoes were the only products for which integrated firms produced more than 25 percent of output in both 1960 and 1980. Integrated turkey and egg producers accounted for more than 25 percent of total volume in 1980. Between 1960 and 1980, the volume of integrated turkey production increased by seven times and that of egg production nearly quadrupled.

Vertical integration and contracting tended to occur in the States without restrictive statutes, even before the other States enacted their statutes (4). There are exceptions, however. While many of the restricting States are important centers of cattle feeding and hog production, the integrating and contracting activities in those enterprises tended to occur in other States. In the States with restrictions on corporate farm activities, cattle and hogs are usually produced on family farms and sold in open markets. That arrangement is generally true also of grain production, which is also very important in most of the States with restrictive statutes.

With increased vertical integration and contracting by farm procurement firms and other food system firms, the importance of corporate farms with more than 10 shareholders may be understated. In a few cases, the importance of 10-or-fewer-shareholder corporations also may be understated. The Bureau of the Census in part addressed the issue when it sponsored a seminar in October of 1982 on changes in agriculture, concepts, and data needs. One of the seminar's conclusions was that some of the most serious problems in measuring data are found in vertically coordinated sectors of agriculture (*15*).

The seminar directed some attention to the broiler industry where vertical integration is prevalent. The information presented indicated that control of production has, for the most part, shifted to integrated broiler firms which in the mid-1980's numbered less than 50. Some of the integrators specialize only in broiler production, while others are subsidiaries of companies involved in nonfood products and even function on a multinational scale.

Certain integrated broiler firms qualify as family farms even though they have sales of up to a billion dollars. Under IRS regulations, family farms in which three or fewer families control at least half of the stock are permitted to use the cash method of accounting for filing Federal income tax returns (*12*). Since completed Bureau of the Census farm questionnaires are confidential, it is not known if integrated corporate broiler firms that qualify as family farms for IRS purposes have more or fewer than 10 shareholders.

In some cases, the integrator owns and controls all the activities from breeding flock through retail shop, supermarket, or fast food restaurant. Most commonly, the integrated broiler firm contracts with farm operators to grow broilers. The farm operator provides facilities and labor, but the integrator pays for both. The Bureau of the Census imputes a value to the finished birds that the farm grower provides to the integrator. The census bureau attributes that value to the State in which the farm grower firms are located regardless of where the integrators are headquartered.

[5]Contracting probably involved both corporations and other forms of business organization with most of the farm product procurers using a corporate form of business organization. Farm producers who enter into contractual arrangements include corporations as well as partnerships and sole proprietors.

Farmers who raise broilers under contract typically have little control over the growing activities since the integrator provides most of the inputs and markets the product. Thus, there is a question of whether the sales of contract-grown broilers could more properly be shown with those of corporate farms to better reflect corporate control. If sales were summed by this method, however, the number of reporting farmers would be decreased unless the broiler growers had other farming activities requiring them to complete an agricultural census questionnaire.

Corporate control is not necessarily undesirable from an individual farmer's perspective. Depending on the individual contract, the integrator usually accepts all of the physical and price risks associated with the growing phase of broiler production.

Table 9—Farm output under production contracts and vertical integration

Products	Production and marketing contracts[1]			Vertical integration[2]		
	1960	1970	1980	1960	1970	1980
	Percent					
Crops[3]	8.6	9.5	14.3	4.3	4.8	5.3
Feed grains	.1	.1	7.0	.4	.5	.5
Hay and forage	.3	.3	.5	NA	NA	NA
Food grains	1.0	2.0	8.0	.3	.5	.5
Vegetables for fresh market	20.0	21.0	18.0	25.0	30.0	35.0
Vegetables for processing	67.0	85.0	85.0	8.0	10.0	15.0
Dry beans and peas	35.0	1.0	2.0	1.0	1.0	1.0
Potatoes	40.0	45.0	60.0	30.0	25.0	35.0
Citrus fruits	60.0	55.0	65.0	20.0	30.0	35.0
Other fruits and nuts	20.0	20.0	35.0	15.0	20.0	25.0
Sugarbeets	98.0	98.0	98.0	2.0	2.0	2.0
Sugarcane	40.0	40.0	40.0	60.0	60.0	60.0
Other sugar crops	5.0	5.0	5.0	2.0	2.0	2.0
Cotton	5.0	11.0	17.0	3.0	1.0	1.0
Tobacco	2.0	2.0	2.0	2.0	2.0	2.0
Oil-bearing crops	1.0	1.0	10.0	.4	.5	.5
Seed crops	80.0	80.0	80.0	.3	.5	10.0
Miscellaneous crops	5.0	5.0	5.0	1.0	1.0	1.0
Livestock items[3]	27.2	31.4	38.2	3.2	4.8	10.1
Fed cattle	10.0	18.0	10.0	3.0	4.0	6.0
Sheep and lambs	2.0	7.0	7.0	2.0	3.0	3.0
Hogs	.7	1.0	1.5	.7	1.0	1.5
Fluid grade milk	95.0	95.0	95.0	3.0	3.0	3.0
Manufacturing grade milk	25.0	25.0	25.0	2.0	1.0	1.0
Eggs	5.0	20.0	52.0	10.0	20.0	37.0
Broilers	93.0	90.0	89.0	5.0	7.0	10.0
Turkeys	30.0	42.0	62.0	4.0	12.0	28.0
Miscellaneous	3.0	3.0	3.0	1.0	1.0	1.0
Total farm output[4]	15.1	17.2	22.9	3.9	4.8	7.4

NA = Not available.

[1] "Contract production" in farming involves the vertical coordination of farm production under agreements between farmers and processors, dealers, or others that usually deal directly with farmers.
[2] "Vertical integration" means the kind of vertical coordination that goes on within a firm, with two or more production or processing stages coordinated inside that firm.
[3] The estimates for individual items are based on the informed judgments of a number of production and marketing specialists in USDA. The totals were obtained by weighting the individual items by the relative weights used in computing the ERS index of total farm output.
[4] Totals obtained by combining the total estimates for crops and livestock after adjusting for double counting of farm-produced feed crops consumed by livestock.

Source: Ronald L. Mighell and William S. Hoofnagle. *Contract Production and Vertical Integration in Farming, 1960 and 1970*, ERS-474. U.S. Department of Agriculture, Economic Research Service, 1972. Data for 1980 were provided by ERS commodity specialists.

While this setup differs from the traditional concept of the wholly independent family farmer, the farm producer of contract broilers may be able to obtain more net farm income and a higher standard of living. Some analysts, however, suggest a need to conduct studies to determine how much the agricultural production sector has become a captive operation of larger manufacturing, wholesaling, and service companies. If such studies are conducted and find that large firms control an increasing share of agricultural production, action should not necessarily be taken to halt or reverse the trend. The positive side of vertical coordination is that it may help increase the efficiency of the food system, improve the competitive position of U.S. agriculture in world markets, and raise farmers' standards of living and quality of life.

While the 1982 Bureau of the Census seminar limited its emphasis to the broiler industry, participants suggested that the cattle-feeding and vegetable-production industries may be emerging under vertical coordination patterned after the broiler firms. Each sector differs from the other (*10*). Tax-sheltered limited partnerships have figured importantly in cattle feeding operations in the Central and Southern Plains where the large feedlots exist. The partnerships practice some vertical control. Tightly specified feeder cattle for placement into the lots are seldom available as are exact specification poults for farmer growers. The cattle feedlot companies usually are responsible for determining rations, procuring feed, procuring and administering health medications, and selling finished cattle, while in the broiler industry the contractor carries out these functions. The vegetable industry, too, has unique characteristics. Research and development has produced specification seeds that result in uniform output. With the exception of areas with very low precipitation where irrigation is essential, vegetable production is subject to climatic variables. Broiler production, on the other hand, is carried out in controlled environments.

The swine industry currently seems to have some of the characteristics that encourage vertical coordination. Consequently, more pork production may be carried out under contract in the near term. Farmers who have encountered financial difficulties but have the know-how and facilities to raise swine seem to prefer producing under contract to either not producing pork or leaving farming completely.

New inputs will not be available to alter the biological characteristics of plants and animals on a widespread scale in the 1980's, but advances in genetic engineering may become commercially available in the early 1990's. Some of the advances that may alter production significantly could set the stage for improving vertical coordination. If so, existing or new, larger firms in the food system may undertake activities to more firmly control production at the farm level.

Postscript

While considerable work can be done to provide improved information on the importance of both family and wider shareholder ownership of corporations involved in farming, budget constraints will limit the work at least for the *1987 Census of Agriculture* and perhaps longer. Lead times of 5 or more years are generally necessary to formulate and implement new or modified sets of questions on the agricultural census. While special supplemental census studies have been done in the past, funding is unlikely to be available for special studies on corporate and vertically coordinated farming during the remainder of the 1980's.

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